

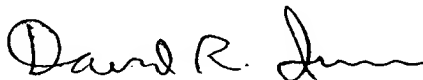
REMARKS

Claims 1-17 were originally rejected by Examiner based on Ho, et al (5,233,545) in view of Nieratschker (6,405,236). In response to Examiner's office action, the claims have been amended to more particularly point out and distinctly claim Applicant's invention. In particular, claims 2, 3, 4, and 15 have been canceled, and claims 1, 14, 16, and 17 have been amended.

Ho processes a sequential stream of waveform-related timestamps, triggered by attributes of waveform amplitude and slope. These timestamps are not related to any information content of the associated waveforms. Unlike Ho, Applicant's invention teaches using the information content of encoded messages to pair specific first and second notifications that may occur in a stream of otherwise unrelated notifications in order to calculate timestamp differences.

Applicant respectfully holds that neither Ho nor Nieratschker teaches this aspect of Applicant's invention, which has been incorporated, by these amendments, into Applicant's independent claims 1, 14, 16, and 17. In view of these amendments to clarify Applicant's invention, it is believed that the claims are allowable. Accordingly, the Examiner is respectfully requested to pass the case for allowance. Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached pages are captioned "Version with Markings to Show Changes."

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

In the specification, the title has been amended to read:

Method and Apparatus for Determining the Performance of Data Processing Devices with
Unsynchronized Clocks

IN THE CLAIMS

The claims have been amended as follows:

1. (Amended) A method for determining the performance of a data processing system wherein processing is started by a first data processing device and finished by a second data processing device which may have separate clocks that are not synchronized, the method comprising the steps of:

by a logging device, receiving a first notification when processing is started by the first data processing device, wherein the first notification includes input data entered when processing is started by the first data processing device;

generating process start time data using a clock of the logging device, wherein the process start time data includes time of receipt by the logging device of the first notification;

by the logging device, receiving a second notification when the processing is finished by the second data processing device, wherein the second notification includes at least part of the input data entered when processing is started by the first data processing device;

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generating process end time data using the clock of the logging device, wherein the process end time data includes time of receipt by the logging device of the second notification;
and

calculating processing time by comparing the process start time data and the process end time data[.];

wherein, in the step of calculating, the process start time data and the process end time data are associated with each other using the input data entered when processing is started by the first data processing device.

14. (Amended) A data processing system comprising:

a first data processing device that starts processing;

a second data processing device for finishing processing; and

a logging device; wherein the logging device comprises:

logic for receiving a first notification including input data when processing is started by the first data processing device;

logic for generating process start time data using a clock of the logging device, wherein the process start time data includes time of receipt by the logging device of the first notification;

logic for receiving a second notification including at least part of the input data when processing is finished by the second data processing device; [and]

logic for generating process end time data using the clock of the logging device, wherein the process end time data includes time of receipt by the logging device of the second notification[.] ; and

logic for associating the process start time data and the process end time data with each other using the input data, and calculating processing time by comparing the process start time data and the process end time data.

16. (Amended) A data logging system, comprising:

logic for receiving a first notification including input data when processing is started by a first data processing device;

logic for generating process start time data using a clock of the logging system, wherein the process start time data includes time of receipt by the logging system of the first notification;

logic for receiving a second notification including at least part of the input data when processing is finished by a second data processing device; [and]

logic for generating process end time data using the clock of the logging system, wherein the process end time data includes time of receipt by the logging system of the second notification[.] ; and

logic for associating the process start time data and the process end time data with each other using the input data, and calculating processing time by comparing the process start time data and the process end time data.

17. (Amended) Programmable media containing programable software for measuring the performance of a data processing system wherein processing is started by a first data processing device and finished by a second data processing device which may have separate clocks that are not synchronized, the programmable software comprising the steps of:

receiving a first notification when processing is started by the first data processing device, wherein the first notification includes input data entered when processing is started by the first data processing device;

generating process start time data using a logging clock, wherein the process start time data includes time of receipt of the first notification;

receiving a second notification when the processing is finished by the second data processing device, wherein the second notification includes at least part of the input data entered when processing is started by the first data processing device;

generating process end time data using the logging clock, wherein the process end time data includes time of receipt of the second notification; and

calculating processing time by comparing the process start time data and the process end time data [.];

wherein, in the step of calculating, the process start time data and the process end time data are associated with each other using the input data entered when processing is started by the first data processing device.